

Title (en)
METHOD AND PACKAGING UTILIZING CALCIUM CYANAMIDE FOR SOIL TREATMENT

Title (de)
VERFAHREN UND PACKUNG DIE CALCIUMCYANAMID ZUR BODENBEHANDLUNG VERWENDEN

Title (fr)
PROCEDE ET STRUCTURES METTANT EN APPLICATION CYANAMIDE DE CALCIUM POUR TRAITER LES SOLS

Publication
EP 1007492 A4 20030604 (EN)

Application
EP 97946245 A 19971020

Priority
• US 9718238 W 19971020
• US 73419396 A 19961021

Abstract (en)
[origin: US5698004A] Processes and structures for using calcium cyanamide fertilizer in a manner to greatly enhance its most effective soil treatment form prior to its application. Calcium cyanamide transformation structures have both fertilizing and pesticidal qualities; however, it is difficult to obtain uniform, efficient effectiveness from dry calcium cyanamide's liquid transformation structures. In the process of this invention, dry, dusty granules and fines of calcium cyanamide are placed directly into tanks of liquid for transformation or within biodegradable bags through which water can freely flow. The bags are submerged in a tank of water. The insoluble calcium and carbon components thereof remain as solid residuals within the bags. Hydrolysis occurs and the solution is biocidal and ready for immediate application. The solution can be sprayed or irrigated onto a targeted soil area with conventional dispersal equipment. The remaining non-dissolved material in the bags can be dispersed on and into the plant crop soil. Additives of other fertilizers into the above solution can be used to enhance effectiveness. When the calcium cyanamide is placed directly into the liquid, the mixture will become slurry-like. In the processes herein, when the solids of calcium cyanamide are not isolated during hydrolysis, the slurry mixture is utilized in recent modern specialized solids fertilizer suspension dispersed equipment having sufficient agitation to keep the solids in suspension.

IPC 1-7
C05C 7/00; C05G 3/00; A01N 59/24

IPC 8 full level
C05C 7/00 (2006.01)

CPC (source: EP US)
C05C 7/00 (2013.01 - EP US)

Citation (search report)
• [X] US 4214888 A 19800729 - YOUNG DONALD C [US]
• [A] DE 2839017 A1 19800320 - WAGNER & HALLENSLEBEN GMBH
• [A] DE 399680 C 19240723 - CHIMIQUES POUR L'IND SOC ET
• [A] CH 97425 A 19230116 - SOC D PRODUITS AZOTES [FR]
• [A] CH 101408 A 19230917 - SOC ET CHIMIQUES POUR L'IND [CH]
• [X] DATABASE WPI Section Ch Week 199702, Derwent World Patents Index; Class E16, AN 1997-017177, XP002237097
• See references of WO 9817603A1

Designated contracting state (EPC)
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
US 5698004 A 19971216; AT E312803 T1 20051215; AU 5145798 A 19980515; AU 741799 B2 20011213; CA 2268778 A1 19980430; CA 2268778 C 20070213; DE 69734897 D1 20060119; DE 69734897 T2 20060824; EP 1007492 A1 20000614; EP 1007492 A4 20030604; EP 1007492 B1 20051214; ES 2255113 T3 20060616; NO 991754 D0 19990414; NO 991754 L 19990617; WO 9817603 A1 19980430

DOCDB simple family (application)
US 73419396 A 19961021; AT 97946245 T 19971020; AU 5145798 A 19971020; CA 2268778 A 19971020; DE 69734897 T 19971020; EP 97946245 A 19971020; ES 97946245 T 19971020; NO 991754 A 19990414; US 9718238 W 19971020